Cyprus Thompson Creek
Post Office Box 62
Clayton, Idaho 83227
Telephone (208) 838-2200

December 19, 1985

Roger K. Mochnick, Chief
Water Permits Section
U.S. Environmental Protection Agency
Region X
1200 Sixth Avenue
Seattle, Washington 98101

ID-002540-2

Subject: Cyprus' Proposed Stormwater Discharge Outfall and 1986 NPDES Permit Renewal

Dear Mr. Mochnick:

Enclosed is an EPA Application Form 1, Form 2C and other permit requirement data located in the Appendix.

We are submitting Form 1 for our proposed Group II Stormwater Discharge for outfall 003 as per attached regulations in Appendix 5. A narrative addressing the purpose and sizing of the sediment pond is located in Appendix 3 of the attachments. Water monitoring data collected at the USGS Bruno Creek gauging station SQ-4 from 1982 to 1984 is located in Appendix 4.

Form 2C is submitted for permit renewal on outfalls 001 and 002. In the past, the following parameters were monitored: Suspended Solids, pH, Flow, Cadmium, Copper, Zinc and Arsenic. We have not monitored for all the parameters listed in Item V. However, we have monitored Thompson Creek below and above the confluence of both outfall stream locations for many of the applicable parameters listed in Item V. The area maps in Appendix 1 show the sampling locations in relation to the outfalls 001 and 002. Appendix 4 documents the results from these sampling stations.

If you have any questions concerning our permitting for the proposed discharge or the renewal of the current discharge points, please call me at (208) 838-2200. Also, Wally Scarburgh of your Idaho Operations Office is familiar with our operations.

Sincerely,

J. A. Sturgess

J. A. Sturgess
Public & Environmental Supervisor

JAS:PBJ:rk/d

Enclosures

cc: W. Scarburgh, EPA Boise
File: P-12-b

x IOO-EPA
IDHW-Boise
IDHW-Pocatello
1-2-86

CYPRUS

Please print or type in the unshaded areas o
(fill—in areas are spaced for elite type, i.e., aracters/inch).

orm Approved. OMB No. 2000-0474. Approval expires 4-30-85

FORM 1 GENERAL

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

GENERAL INFORMATION

Consolidated Permits Program

(Read the "General Instructions" before starting.)

I. EPA I.D. NUMBER

S F | I D - 0 0 2 5 4 0 - 2 | T/A | C D

LABEL ITEMS

I. EPA I.D. NUMBER

III. FACILITY NAME

V. FACILITY MAILING ADDRESS

VI. FACILITY LOCATION

PLEASE PLACE LABEL IN THIS SPACE

GENERAL INSTRUCTIONS

If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill—in area below. Also, if any of the preprinted data is absent *(the area to the left of the label space lists the information that should appear)*, please provide it in the proper fill—in area*(s)* below. If the label is complete and correct, you need not complete Items I, III, V, and VI *(except VI-B which must be completed regardless)*. Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.

II. POLLUTANT CHARACTERISTICS

INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of **bold—faced terms.**

SPECIFIC QUESTIONS	MARK 'X' YES	NO	FORM ATTACHED
A. Is this facility a **publicly owned treatment works** which results in a **discharge** to **waters of the U.S.**? (FORM 2A)		X	
B. Does or will this facility *(either existing or proposed)* include a **concentrated animal feeding operation** or **aquatic animal production facility** which results in a **discharge** to **waters of the U.S.**? (FORM 2B)		X	
C. Is this a facility which currently results in **discharges** to **waters of the U.S.** other than those described in A or B above? (FORM 2C)	X		
D. Is this a proposed facility *(other than those described in A or B above)* which will result in a **discharge** to **waters of the U.S.**? (FORM 2D)		X	
E. Does or will this facility treat, store, or dispose of **hazardous wastes**? (FORM 3)		X	
F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)		X	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)		X	
H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)		X	
I. Is this facility a proposed **stationary source** which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	
J. Is this facility a proposed **stationary source** which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an **attainment area**? (FORM 5)		X	

III. NAME OF FACILITY

1 SKIP: C Y P R U S T H O M P S O N C R E E K

IV. FACILITY CONTACT

A. NAME & TITLE *(last, first, & title)*	B. PHONE *(area code & no.)*
2 S T U R G E S S J A M I E E N V. S U P E R V I S O R	2 0 8 | 8 3 8 | 2 2 0 0

V. FACILITY MAILING ADDRESS

A. STREET OR P.O. BOX	B. CITY OR TOWN	C. STATE	D. ZIP CODE
3 P O B O X 6 2	4 C L A Y T O N	I D	8 3 2 2 7

RECEIVED

VI. FACILITY LOCATION

A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER	B. COUNTY NAME	C. CITY OR TOWN	D. STATE	E. ZIP CODE	F. COUNTY CODE *(if known)*
5 3 5 M I L E S S O U T H W E S T O F C H A L L I S	C U S T E R	6 C L A Y T O N	I D	8 3 2 2 7	

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IDHW-Boise
IDHW-Pocatello
1-2-86 HB

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VII. SIC CODES (4-digit, in order of priority)

A. FIRST	B. SECOND
7 (specify) ORE MINING	7 (specify)
C. THIRD	**D. FOURTH**
7 (specify)	7 (specify)

VIII. OPERATOR INFORMATION

A. NAME

8 CYPRUS THOMPSON CREEK MINING CO.

B. Is the name listed in Item VIII-A also the owner? [X] YES [ ] NO (66)

C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box; if "Other", specify.)

F = FEDERAL
S = STATE
P = PRIVATE
M = PUBLIC (other than federal or state)
O = OTHER (specify)

P (specify)

D. PHONE (area code & no.)

A 208 838 2200

E. STREET OR P.O. BOX

PO BOX 62

F. CITY OR TOWN	G. STATE	H. ZIP CODE
B CLAYTON	ID	83227

IX. INDIAN LAND

Is the facility located on Indian lands? [ ] YES [X] NO (52)

X. EXISTING ENVIRONMENTAL PERMITS

A. NPDES (Discharges to Surface Water)	D. PSD (Air Emissions from Proposed Sources)
9 N ID-002540-2	9 P 0540-0001
B. UIC (Underground Injection of Fluids)	**E. OTHER** (specify)
9 U	9 (specify)
C. RCRA (Hazardous Wastes)	**E. OTHER** (specify)
9 R	9 (specify)

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property bounderies. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Molybdenum Mine The basic steps for mining molybdenum at Thompson Creek are as follows:

1. Mining
2. Crushing and conveying ore
3. Concentrating
4. Dry, packing, and shipping moly concentrate

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XIII. CERTIFICATION (see instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME & OFFICIAL TITLE (type or print)	B. SIGNATURE	C. DATE SIGNED
J. A. Sturgess Environmental Supervisor	J A Sturgess	12-19-85

COMMENTS FOR OFFICIAL USE ONLY

C

EPA Form 3510-1 (Rev. 10-80) Reverse

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FORM 2C NPDES

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY
APPLICATION FOR PERMIT TO DISCHARGE WASTEWATER
EXISTING MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURAL OPERATIONS
Consolidated Permits Program

I. OUTFALL LOCATION

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. OUTFALL NUMBER (list)	B. LATITUDE			C. LONGITUDE			D. RECEIVING WATER (name)
	1. DEG.	2. MIN.	3. SEC.	1. DEG.	2. MIN.	3. SEC.	
001	44°	18'	38"	114°	34'	30"	Buckskin Creek
002	44°	17'	46"	114°	32'	41"	Pat Hughes Creek

II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined *(e.g., for certain mining activities)*, provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

B. For each outfall, provide a description of: (1) All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) The average flow contributed by each operation; and (3) The treatment received by the wastewater. Continue on additional sheets if necessary.

1. OUTFALL NO. (list)	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT		
	a. OPERATION (list)	b. AVERAGE FLOW (include units)	a. DESCRIPTION	b. LIST CODES FROM TABLE 2C-1	
001	Sediment Dam	151,000 GPD for water year 1984	Stormwater runoff from active mining site	U-1	
002	Sediment Dam	242,000 GPD for water year 1984	Stormwater runoff from active mining site	U-1	

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OFFICIAL USE ONLY *(effluent guidelines sub-categories)*

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C. Except for storm runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐ YES *(complete the following table)* ☒ NO *(go to Section III)*

1. OUTFALL NUMBER *(list)*	2. OPERATION(s) CONTRIBUTING FLOW *(list)*	3. FREQUENCY		4. FLOW				
		a. DAYS PER WEEK *(specify average)*	b. MONTHS PER YEAR *(specify average)*	a. FLOW RATE *(in mgd)*		b. TOTAL VOLUME *(specify with units)*		c. DURATION *(in days)*
				1. LONG TERM AVERAGE	2. MAXIMUM DAILY	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	

III. PRODUCTION

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐ YES *(complete Item III-B)* ☒ NO *(to to Section IV)*

B. Are the limitations in the applicable effluent guideline expressed in terms of production *(or other measure of operation)*?

☐ YES *(complete Item III-C)* ☐ NO *(go to Section IV)*

C. If you answered "yes" to Item III-B, list the quantity which represents an actual measurement of your level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

1. AVERAGE DAILY PRODUCTION			2. AFFECTED OUTFALLS *(list outfall numbers)*
a. QUANTITY PER DAY	b. UNITS OF MEASURE	c. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*	

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IV. IMPROVEMENTS

A. Are you now required by any Federal, State or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

☐ YES *(complete the following table)* ☒ NO *(go to Item IV-B)*

1. IDENTIFICATION OF CONDITION, AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
	a. NO.	b. SOURCE OF DISCHARGE		a. REQUIRED	b. PROJECTED

B. OPTIONAL: You may attach additional sheets describing any additional water pollution control programs *(or other environmental projects which may affect your discharges)* you now have underway or which you plan. Indicate whether each program is now underway or planned, and indicate your actual or planned schedules for construction. ☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED

ID-002540-2

I.D. NUMBER (copy from Item 1 of Form 1)
ID-002540-2

Form Approved.
OMB No. 2000-0059
Approval expires 12-31-85

V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* ☒ NO *(go to Section VIII)*

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE (area code & no.)	D. POLLUTANTS ANALYZED (list)
Environmental Engineering Laboratories	1804 North 33rd St. Boise, Idaho 83703	208 342-5515	See attached water monitoring reports

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IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. (area code & no.)
J. A. Sturgess, Environmental Supervisor	208 838-2200
C. SIGNATURE J A Sturgess	D. DATE SIGNED 12-19-85

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

EPA I.D. NUMBER *(copy from Item 1 of Form 1)*: ID-002540-2

Form Approved OMB No. 2000-0059 Approval expires 12-31-85

V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO.: 001

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	3. UNITS (specify if blank) a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE (optional) b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*			10.0 (1984)		3.3 (1984)		8	mg/l				
e. Ammonia *(as N)*												
f. Flow	VALUE		VALUE 2542 1000 GPD (May 1984)		VALUE 151 1000 GPD (1984)		Continuous			VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM 7.1	MAXIMUM 9.0			8	STANDARD UNITS				

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PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate–Nitrite *(as N)*		X												

ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)		X												
h. Oil and Grease		X												
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium [illegible] Total		X												
k. Sulfate (as SO_4) (14808-79-8)		X												
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total [illegible]-48-4)		X												
s. Iron, Total (7439-89-6)		X												
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)		X												
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total (7440-32-6)		X												

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CONTINUED FROM PAGE 3 OF FORM 2-C

PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS		a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)															
2M. Arsenic, Total (7440-38-2)		X				0.01		< .008		3	mg/1				
Beryllium, Total, 7440-41-7)															
4M. Cadmium, Total (7440-43-9)		X				< .005		< .005		3	mg/1				
5M. Chromium, Total (7440-47-3)															
6M. Copper, Total (7440-50-8)		X				< .01		<.01		3	mg/1				
7M. Lead, Total (7439-92-1)															
8M. Mercury, Total (7439-97-6)															
9M. Nickel, Total (7440-02-0)															
10M. Selenium, Total (7782-49-2)															
Silver, Total (0-22-4)															
12M. Thallium, Total (7440-28-0)															
13M. Zinc, Total (7440-66-6)		X				0.59		0.020		3	mg/1				
14M. Cyanide, Total (57-12-5)															
15M. Phenols, Total															
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)				DESCRIBE RESULTS											

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis *(Chloromethyl)* Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon Tetrachloride (56-23-5)			X												
. Chlorobenzene 08-90-7)			X												
8V. Chlorodibromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloroethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichlorobromomethane (75-27-4)			X												
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)			X												
15V. 1,2-Dichloroane (107-06-2)			X												
16V. 1,1-Dichloroethylene (75-35-4)			X												
17V. 1,2-Dichloropropane (78-87-5)			X												
18V. 1,3-Dichloropropylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83-9)			X												
21V. Methyl Chloride (74-87-3)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*										
22V. Methylene Chloride (75-09-2)			X							
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X							
24V. Tetrachloroethylene (127-18-4)			X							
25V. Toluene (108-88-3)			X							
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X							
27V. 1,1,1-Trichloroethane (71-55-6)			X							
28V. 1,1,2-Trichloroethane (79-00-5)			X							
29V. Trichloroethylene (79-01-6)			X							
30V. Trichlorofluoromethane (75-69-4)			X							
31V. Vinyl Chloride (75-01-4)			X							
GC/MS FRACTION – ACID COMPOUNDS										
1A. 2-Chlorophenol (95-57-8)			X							
2A. 2,4-Dichlorophenol (120-83-2)			X							
3A. 2,4-Dimethylphenol (105-67-9)			X							
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X							
5A. 2,4 Dinitrophenol (51-28-5)			X							
6A. 2-Nitrophenol (88-75-5)			X							
7A. 4-Nitrophenol (100-02-7)			X							
8A. P-Chloro-M-Cresol (59-50-7)			X							
9A. Pentachlorophenol (87-86-5)			X							
10A. Phenol (108-95-2)			X							
11A. 2,4,6-Trichlorophenol (88-06-2)			X							

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo *(a)* Anthracene (56-55-3)			X												
6B. Benzo *(a)* Pyrene (50-32-8)			X												
7B. 3,4-Benzo- anthene (205-99-2)			X												
8B. Benzo *(ghi)* Perylene (191-24-2)			X												
9B. Benzo *(k)* Fluoranthene (207-08-9)			X												
10B. Bis *(2-Chloroethoxy)* Methane (111-91-1)			X												
11B. Bis *(2-Chloroethyl)* Ether (111-44-4)			X												
12B. Bis *(2-Chloroisopropyl)* Ether (102-60-1)			X												
13B. Bis *(2-Ethylhexyl)* Phthalate (117-81-7)			X												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloronaphthalene (91-58-7)			X												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo *(a,h)* Anthracene (53-70-3)			X												
20B. 1,2-Dichlorobenzene (95-50-1)			X												
21B. 1,3-Dichlorobenzene (541-73-1)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	2. MARK 'X' b. BELIEVED PRESENT	2. MARK 'X' c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	3. EFFLUENT a. MAXIMUM DAILY VALUE (2) MASS	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	3. EFFLUENT b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	3. EFFLUENT c. LONG TERM AVRG. VALUE (if available) (2) MASS	3. EFFLUENT d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE (optional) b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-74-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4 - Trichlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor (76-44-8)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVRG. VALUE (1) CONCENTRATION	b. MASS	b. NO. OF ANALYSES
GC/MS FRACTION – PESTICIDES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

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V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding — Complete one set of tables for each outfall — Annotate the outfall number in the space provided. NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered V-1 through V-9.

D. Use the space below to list any of the pollutants listed in Table 2c-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
None			

VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

Is any pollutant listed in Item V-C a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ YES *(list all such pollutants below)* ☒ NO *(go to Item VI-B)*

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VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ YES *(identify the test(s) and describe their purposes below)* ☒ NO *(go to Section VIII)*

VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ YES *(list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)* ☐ NO *(go to Section IX)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code & no.)*	D. POLLUTANTS ANALYZED *(list)*
Environmental Engineering Laboratories	1804 North 33rd Street Boise, Idaho 83703	(208) 342-5515	See attached water monitoring reports

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IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. NAME & OFFICIAL TITLE *(type or print)*	B. PHONE NO. *(area code & no.)*
J. A. Sturgess, Environmental Supervisor	(208) 838-2200
C. SIGNATURE 12-19-85	D. DATE SIGNED

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PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets *(use the same format)* instead of completing these pages. SEE INSTRUCTIONS.

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V. INTAKE AND EFFLUENT CHARACTERISTICS *(continued from page 3 of Form 2-C)*

OUTFALL NO. 002

PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	3. UNITS *(specify if blank)* a. CONCENTRATION	3. UNITS b. MASS	4. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	4. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	4. INTAKE b. NO. OF ANALYSES
a. Biochemical Oxygen Demand *(BOD)*												
b. Chemical Oxygen Demand *(COD)*												
c. Total Organic Carbon *(TOC)*												
d. Total Suspended Solids *(TSS)*			49		6.5		52	mg/l				
e. Ammonia *(as N)*												
f. Flow	VALUE		VALUE 2646	1000 GPD (May 1984)	VALUE 242	1000 GPD (1984)	Continuous			VALUE		
g. Temperature *(winter)*	VALUE		VALUE		VALUE			°C		VALUE		
h. Temperature *(summer)*	VALUE		VALUE		VALUE			°C		VALUE		
i. pH	MINIMUM	MAXIMUM	MINIMUM 7.3	MAXIMUM 9.3			52	STANDARD UNITS				

PART B - Mark "X" in column 2-a for each pollutant you know or have reason to believe is present. Mark "X" in column 2-b for each pollutant you believe to be absent. If you mark column 2a for any pollutant which is limited either directly, or indirectly but expressly, in an effluent limitations guideline, you must provide the results of at least one analysis for that pollutant. For other pollutants for which you mark column 2a, you must provide quantitative data or an explanation of their presence in your discharge. Complete one table for each outfall. See the instructions for additional details and requirem

1. POLLUTANT AND CAS NO. *(if available)*	2. MARK 'X' a. BELIEVED PRESENT	2. MARK 'X' b. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	4. UNITS b. MASS	5. INTAKE *(optional)* a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	5. INTAKE a. LONG TERM AVERAGE VALUE (2) MASS	5. INTAKE b. NO. OF ANALYSES
a. Bromide (24959-67-9)		X												
b. Chlorine, Total Residual		X												
c. Color		X												
d. Fecal Coliform		X												
e. Fluoride (16984-48-8)		X												
f. Nitrate–Nitrite *(as N)*		X												

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ITEM V-B CONTINUED FROM FRONT

1. POLLUTANT AND CAS NO. (if available)	2. MARK 'X'		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. BELIEVED PRESENT	b. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
g. Nitrogen, Total Organic (as N)		X												
h. Oil and Grease		X												
i. Phosphorus (as P), Total (7723-14-0)		X												
j. Radioactivity														
(1) Alpha, Total		X												
(2) Beta, Total		X												
(3) Radium, Total		X												
(4) Radium 226, Total		X												
k. Sulfate (as SO_4) (14808-79-8)		X												
l. Sulfide (as S)		X												
m. Sulfite (as SO_3) (14265-45-3)		X												
n. Surfactants		X												
o. Aluminum, Total (7429-90-5)		X												
p. Barium, Total (7440-39-3)		X												
q. Boron, Total (7440-42-8)		X												
r. Cobalt, Total (7440-48-4)		X												
s. Iron, Total (7439-89-6)		X												
t. Magnesium, Total (7439-95-4)		X												
u. Molybdenum, Total (7439-98-7)		X												
v. Manganese, Total (7439-96-5)		X												
w. Tin, Total (7440-31-5)		X												
x. Titanium, Total		X												

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PART C - If you are a primary industry and this outfall contains process wastewater, refer to Table 2c-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-a for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark column 2-a *(secondary industries, nonprocess wastewater outfalls, and nonrequired GC/MS fractions)*, mark "X" in column 2-b for each pollutant you know or have reason to believe is present. Mark "X" in column 2-c for each pollutant you believe is absent. If you mark column 2a for any pollutant, you must provide the results of at least one analysis for that pollutant. If you mark column 2b for any pollutant, you must provide the results of at least one analysis for that pollutant if you know or have reason to believe it will be discharged in concentrations of 10 ppb or greater. If you mark column 2b for acrolein, acrylonitrile, 2,4 dinitrophenol, or 2-methyl-4, 6 dinitrophenol, you must provide the results of at least one analysis for each of these pollutants which you know or have reason to believe that you discharge in concentrations of 100 ppb or greater. Otherwise, for pollutants for which you mark column 2b, you must either submit at least one analysis or briefly describe the reasons the pollutant is expected to be discharged. Note that there are 7 pages to this part; please review each carefully. Complete one table *(all 7 pages)* for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK 'X'			3. EFFLUENT						d. NO. OF ANALYSES	4. UNITS		5. INTAKE *(optional)*		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE *(if available)* (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE *(if available)* (2) MASS	c. LONG TERM AVRG. VALUE *(if available)* (1) CONCENTRATION	c. LONG TERM AVRG. VALUE *(if available)* (2) MASS		a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
METALS, CYANIDE, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-0)			X												
2M. Arsenic, Total (7440-38-2)		X				0.03		0.013		7	mg/l				
3M. Beryllium, Total, 7440-41-7)			X												
4M. Cadmium, Total (7440-43-9)		X				<0.005		<0.004		7	mg/l				
5M. Chromium, Total (7440-47-3)			X												
6M. Copper, Total (7440-50-8)		X				<0.01		<0.01		7	mg/l				
7M. Lead, Total (7439-92-1)			X												
8M. Mercury, Total (7439-97-6)			X												
9M. Nickel, Total (7440-02-0)			X												
10M. Selenium, Total (7782-49-2)			X												
11M. Silver, Total (7440-22-4)			X												
12M. Thallium, Total (7440-28-0)			X												
13M. Zinc, Total (7440-66-6)		X				0.083		0.043		7	mg/l				
14M. Cyanide, Total (57-12-5)			X												
15M. Phenols, Total			X												
DIOXIN															
2,3,7,8-Tetrachlorodibenzo-P-Dioxin (1764-01-6)			X	DESCRIBE RESULTS											

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE (1) CONCENTRATION	a. MAXIMUM DAILY VALUE (2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	b. MAXIMUM 30 DAY VALUE (if available) (2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	c. LONG TERM AVRG. VALUE (if available) (2) MASS	d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	a. LONG TERM AVERAGE VALUE (2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)			X												
2V. Acrylonitrile (107-13-1)			X												
3V. Benzene (71-43-2)			X												
4V. Bis *(Chloromethyl)* Ether (542-88-1)			X												
5V. Bromoform (75-25-2)			X												
6V. Carbon Tetrachloride (56-23-5)			X												
7V. Chlorobenzene (108-90-7)			X												
8V. Chlorodibromomethane (124-48-1)			X												
9V. Chloroethane (75-00-3)			X												
10V. 2-Chloroethylvinyl Ether (110-75-8)			X												
11V. Chloroform (67-66-3)			X												
12V. Dichlorobromomethane (75-27-4)			X												
13V. Dichlorodifluoromethane (75-71-8)			X												
14V. 1,1-Dichloroethane (75-34-3)			X												
15V. 1,2-Dichloroethane (107-06-2)			X												
16V. 1,1-Dichloroethylene (75-35-4)			X												
17V. 1,2-Dichloropropane (78-87-5)			X												
18V. 1,3-Dichloropropylene (542-75-6)			X												
19V. Ethylbenzene (100-41-4)			X												
20V. Methyl Bromide (74-83-9)			X												
21V. Methyl Chloride (74-87-3)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)			X												
23V. 1,1,2,2-Tetrachloroethane (79-34-5)			X												
24V. Tetrachloroethylene (127-18-4)			X												
25V. Toluene (108-88-3)			X												
26V. 1,2-Trans-Dichloroethylene (156-60-5)			X												
27V. 1,1,1-Trichloroethane (71-55-6)			X												
28V. 1,1,2-Trichloroethane (79-00-5)			X												
29V. Trichloroethylene (79-01-6)			X												
30V. Trichlorofluoromethane (75-69-4)			X												
31V. Vinyl Chloride (75-01-4)			X												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2-Chlorophenol (95-57-8)			X												
2A. 2,4-Dichlorophenol (120-83-2)			X												
3A. 2,4-Dimethylphenol (105-67-9)			X												
4A. 4,6-Dinitro-O-Cresol (534-52-1)			X												
5A. 2,4-Dinitrophenol (51-28-5)			X												
6A. 2-Nitrophenol (88-75-5)			X												
7A. 4-Nitrophenol (100-02-7)			X												
8A. P-Chloro-M-Cresol (59-50-7)			X												
9A. Pentachlorophenol (87-86-5)			X												
10A. Phenol (108-95-2)			X												
11A. 2,4,6-Trichlorophenol (88-06-2)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)			X												
2B. Acenaphtylene (208-96-8)			X												
3B. Anthracene (120-12-7)			X												
4B. Benzidine (92-87-5)			X												
5B. Benzo *(a)* Anthracene (56-55-3)			X												
6B. Benzo *(a)* Pyrene (50-32-8)			X												
7B. 3,4-Benzo-fluoranthene (205-99-2)			X												
8B. Benzo *(ghi)* Perylene (191-24-2)			X												
9B. Benzo *(k)* Fluoranthene (207-08-9)			X												
10B. Bis *(2-Chloro-ethoxy)* Methane (111-91-1)			X												
11B. Bis *(2-Chloro-ethyl)* Ether (111-44-4)			X												
12B. Bis *(2-Chloroiso-propyl)* Ether (102-60-1)			X												
13B. Bis *(2-Ethyl-hexyl)* Phthalate (117-81-7)			X												
14B. 4-Bromo-phenyl Phenyl Ether (101-55-3)			X												
15B. Butyl Benzyl Phthalate (85-68-7)			X												
16B. 2-Chloro-naphthalene (91-58-7)			X												
17B. 4-Chloro-phenyl Phenyl Ether (7005-72-3)			X												
18B. Chrysene (218-01-9)			X												
19B. Dibenzo *(a,h)* Anthracene (53-70-3)			X												
20B. 1,2-Dichloro-benzene (95-50-1)			X												
21B. 1,3-Dichloro-benzene (541-73-1)			X												

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EPA I.D. NUMBER (copy from Item 1 of Form 1): ID-002540-2

OUTFALL NUMBER: 002

Form Approved.
OMB No. 2000-0059
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1,4-Dichlorobenzene (106-46-7)			X												
23B. 3,3'-Dichlorobenzidine (91-94-1)			X												
24B. Diethyl Phthalate (84-66-2)			X												
25B. Dimethyl Phthalate (131-11-3)			X												
26B. Di-N-Butyl Phthalate (84-74-2)			X												
27B. 2,4-Dinitrotoluene (121-14-2)			X												
28B. 2,6-Dinitrotoluene (606-20-2)			X												
29B. Di-N-Octyl Phthalate (117-84-0)			X												
30B. 1,2-Diphenylhydrazine *(as Azobenzene)* (122-66-7)			X												
31B. Fluoranthene (206-44-0)			X												
32B. Fluorene (86-73-7)			X												
33B. Hexachlorobenzene (118-74-1)			X												
34B. Hexachlorobutadiene (87-68-3)			X												
35B. Hexachlorocyclopentadiene (77-47-4)			X												
36B. Hexachloroethane (67-72-1)			X												
37B. Indeno *(1,2,3-cd)* Pyrene (193-39-5)			X												
38B. Isophorone (78-59-1)			X												
39B. Naphthalene (91-20-3)			X												
40B. Nitrobenzene (98-95-3)			X												
41B. N-Nitrosodimethylamine (62-75-9)			X												
42B. N-Nitrosodi-N-Propylamine (621-64-7)			X												

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1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X' a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	3. EFFLUENT a. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	b. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	c. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	d. NO. OF ANALYSES	4. UNITS a. CONCENTRATION	b. MASS	5. INTAKE (optional) a. LONG TERM AVERAGE VALUE (1) CONCENTRATION	(2) MASS	b. NO. OF ANALYSES
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
43B. N-Nitrosodiphenylamine (86-30-6)			X												
44B. Phenanthrene (85-01-8)			X												
45B. Pyrene (129-00-0)			X												
46B. 1,2,4 - Trichlorobenzene (120-82-1)			X												
GC/MS FRACTION – PESTICIDES															
1P. Aldrin (309-00-2)			X												
2P. α-BHC (319-84-6)			X												
3P. β-BHC (319-85-7)			X												
4P. γ-BHC (58-89-9)			X												
5P. δ-BHC (319-86-8)			X												
6P. Chlordane (57-74-9)			X												
7P. 4,4'-DDT (50-29-3)			X												
8P. 4,4'-DDE (72-55-9)			X												
9P. 4,4'-DDD (72-54-8)			X												
10P. Dieldrin (60-57-1)			X												
11P. α-Endosulfan (115-29-7)			X												
12P. β-Endosulfan (115-29-7)			X												
13P. Endosulfan Sulfate (1031-07-8)			X												
14P. Endrin (72-20-8)			X												
15P. Endrin Aldehyde (7421-93-4)			X												
16P. Heptachlor			X												

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EPA I.D. NUMBER (copy from Item 1 of Form 1)	OUTFALL NUMBER
ID-002540-2	002

Form Approved.
OMB No. 2000-0059
Approval expires 12-31-85

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK 'X'			3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	a. TESTING REQUIRED	b. BELIEVED PRESENT	c. BELIEVED ABSENT	a. MAXIMUM DAILY VALUE		b. MAXIMUM 30 DAY VALUE (if available)		c. LONG TERM AVRG. VALUE (if available)		d. NO. OF ANALYSES	a. CONCENTRATION	b. MASS	a. LONG TERM AVERAGE VALUE		b. NO. OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICIDES (continued)															
17P. Heptachlor Epoxide (1024-57-3)			X												
18P. PCB-1242 (53469-21-9)			X												
19P. PCB-1254 (11097-69-1)			X												
20P. PCB-1221 (11104-28-2)			X												
21P. PCB-1232 (11141-16-5)			X												
22P. PCB-1248 (12672-29-6)			X												
23P. PCB-1260 (11096-82-5)			X												
24P. PCB-1016 (12674-11-2)			X												
25P. Toxaphene (8001-35-2)			X												

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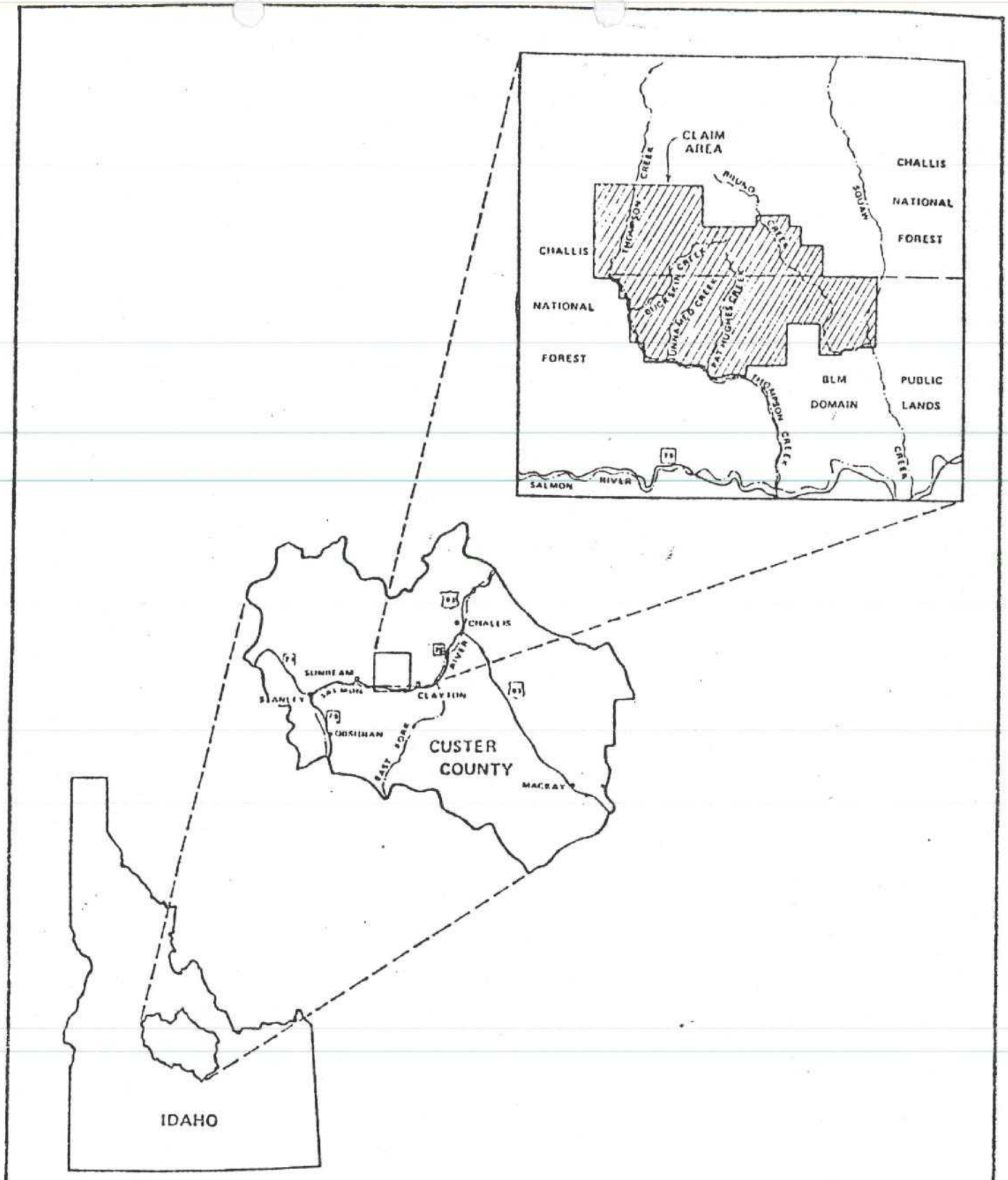
APPENDIX 1

AREA MAPS



LOCATION OF THOMPSON CREEK MOLYBDENUM MINE

CUSTER COUNTY, IDAHO

FIGURE 1

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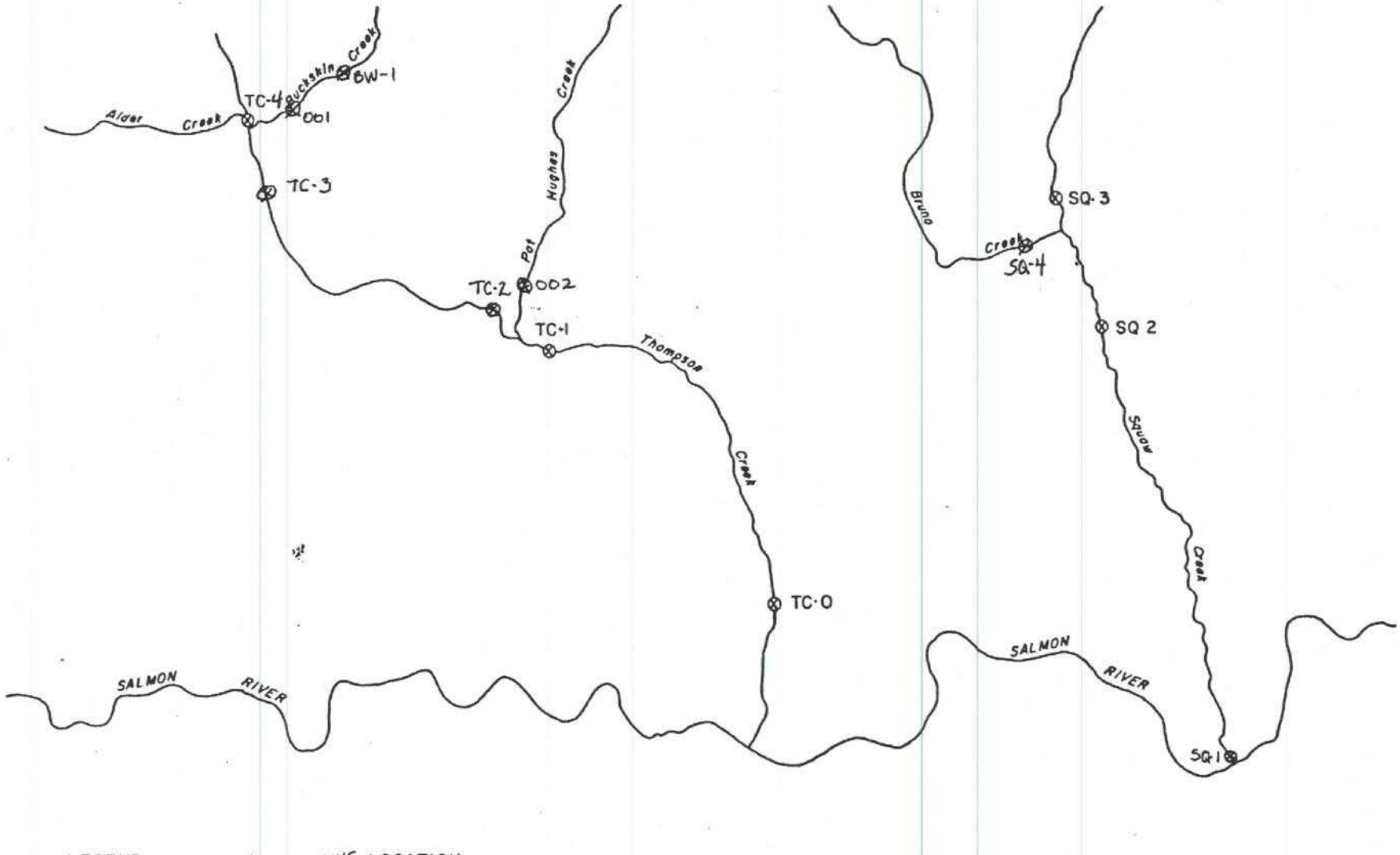
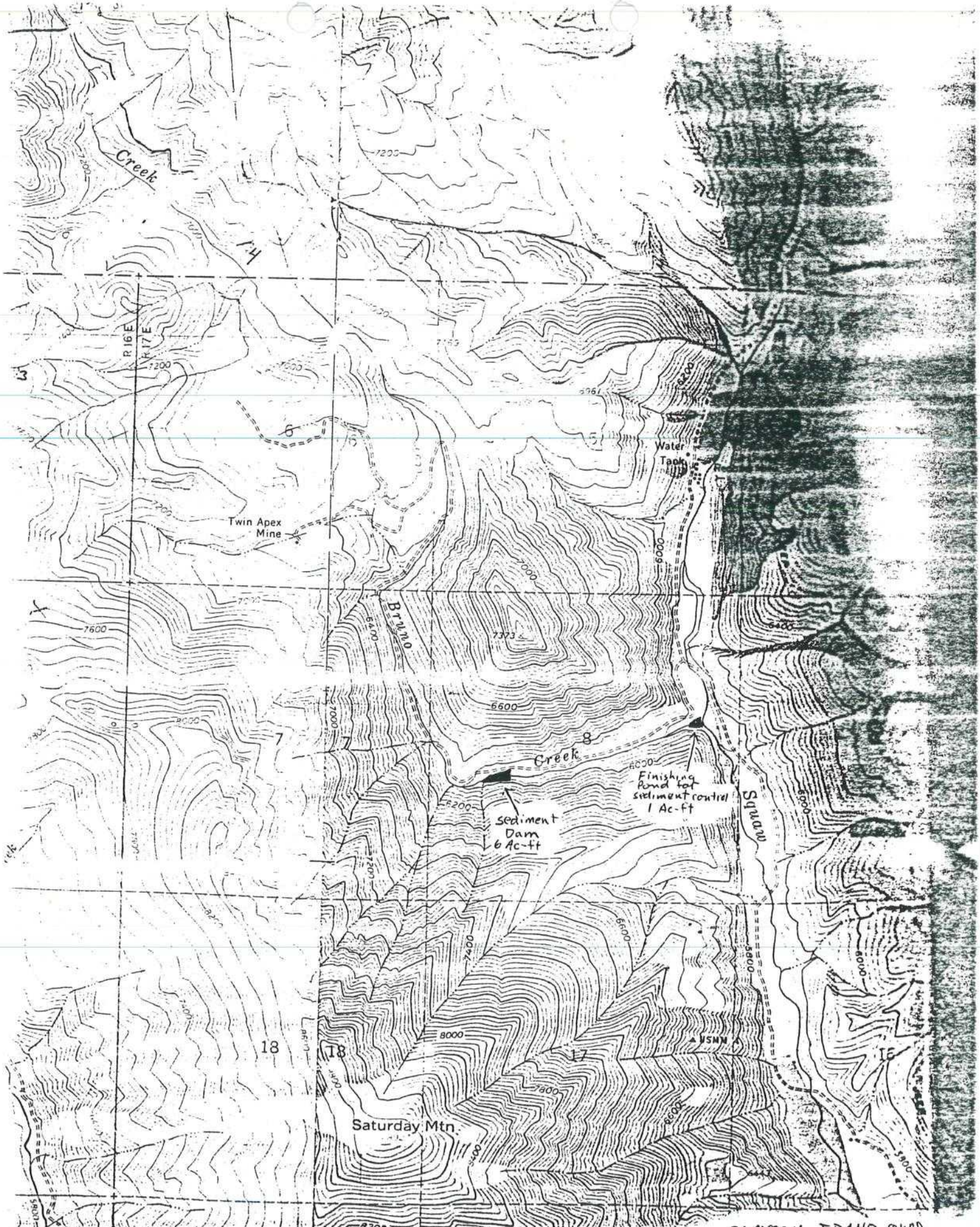


Figure 1. Sampling station locations on Thompson, Squaw and Bruno Creeks, Custer County, Idaho.



Bruno Creek Sediment Dams

CLAYTON, IDAHO QUAD
ID-002540-2

APPENDIX 2

LINE DRAWINGS FOR OUTFALLS
001, 002, AND 003

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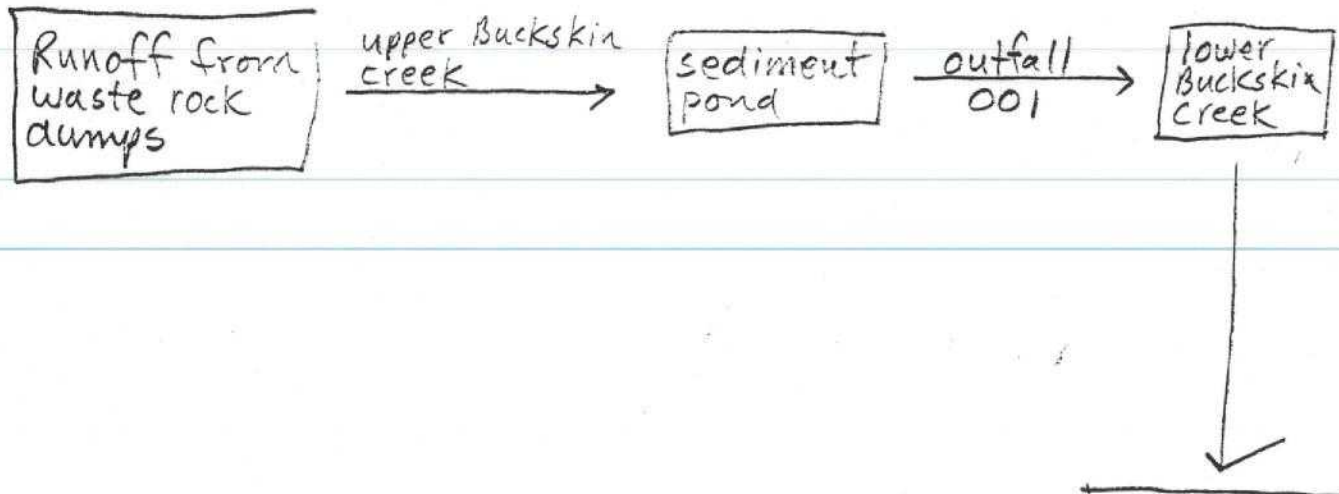
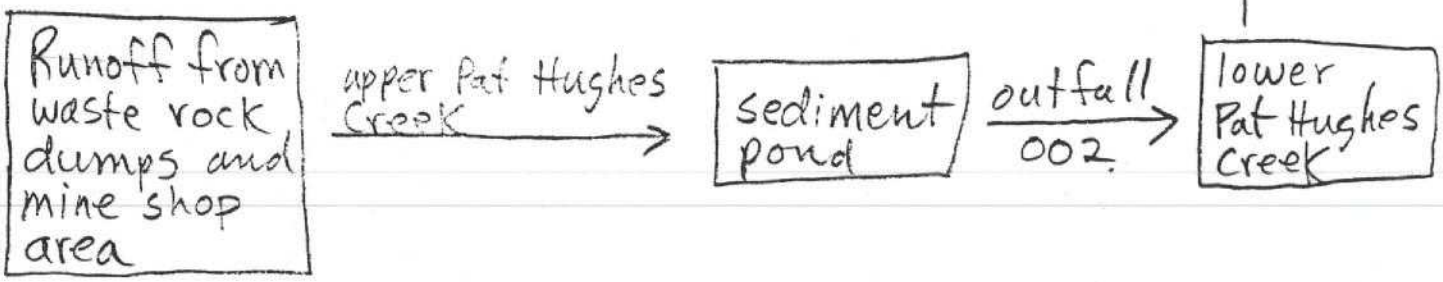
LINE DRAWING FOR OUTFALLS 001 AND 002

Outfall 001



Outfall 002



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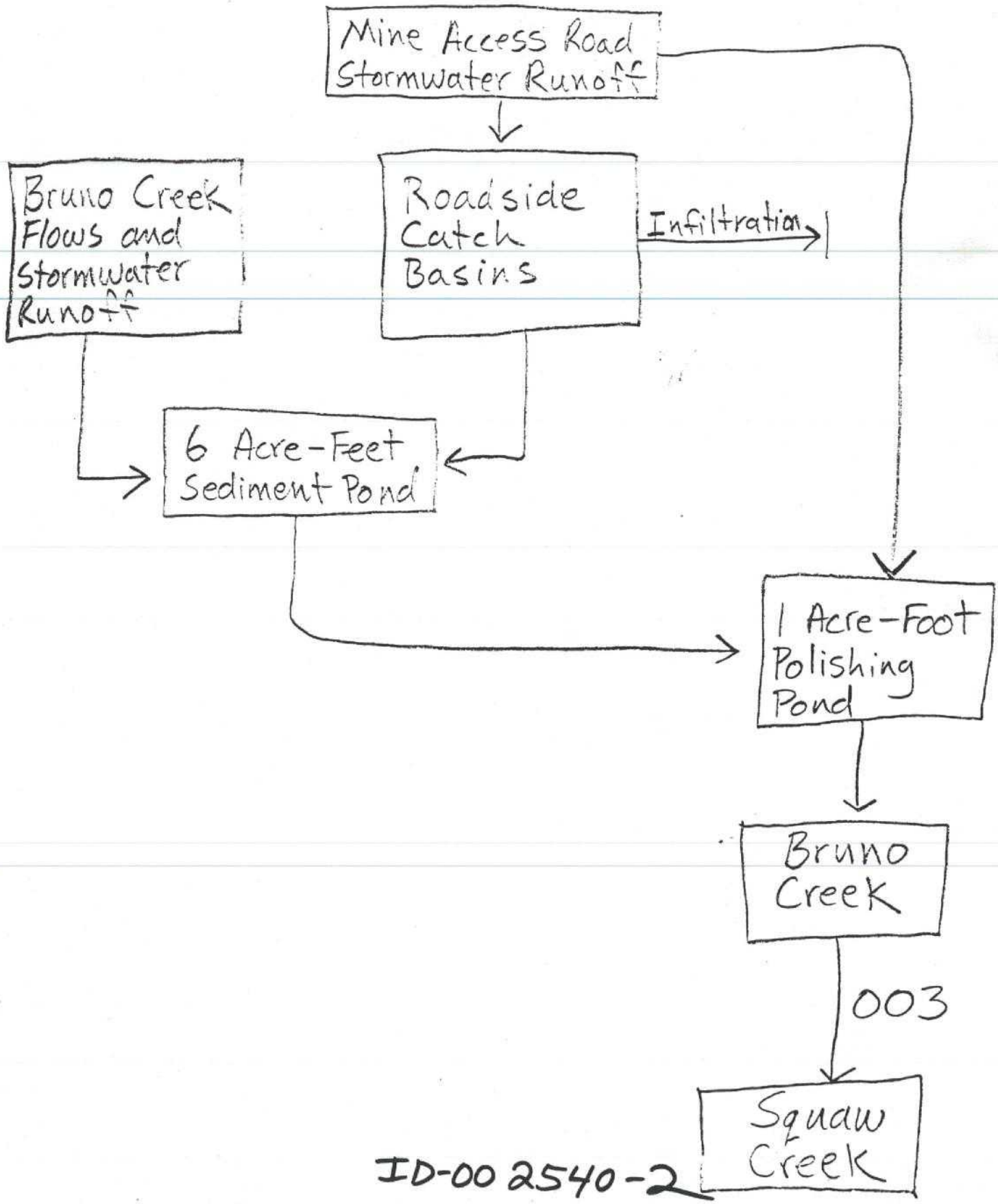
LINE DRAWING FOR OUTFALL 003



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APPENDIX 3

BRUNO CREEK SEDIMENT POND
SIZING NARRATIVE AND DATA

ID-002540-2

Section 1

Evaluation of Sediment Pond Sizing

Several steps were used in the pond sizing exercise. The first step used all available Squaw and Bruno Creek turbidity data from the Forest Service, Geological Survey, and Cyprus. This step was to determine what flow rates have been associated with elevated turbidity. The data from this step are shown in Table 1-1 and Figure 1-1.

Note on Figure 1-1 that the data show the highest turbidity

The second step used the criterion of 5 NTU over background in Squaw Creek (or 10% if Squaw Creek was over 50 NTU's). The available data show only 13 examples where this criteria was not met, for the four years (81-84) of record. (Table 1-2). Three of the 13 examples coincided with production test pumping of the production well. Dilution ratios from Squaw Creek were then calculated from the USGS data for the 13 example days of record. (See Table 1-2).

Using these daily dilution ratios, the Bruno Creek allowable turbidity levels were then calculated. The worst case example is shown below, evaluated by two methods.

Method A

On March 3, 1983, Bruno Creek had a measured turbidity value of 1400 NTU's. Squaw Creek had a value of 290 NTU's, 284.4 NTU's over background, which is also the worst case on record. At a dilution ratio of 12.6:1, Bruno Creek presumably flowed at some 3,600 NTU's for a short period of time (284.4 NTU's x 12.6 dilution = 3,583 NTU's). A simulated turbidity record for that day is shown below, on Figure 1-2.

TABLE 1-1

Bruno Creek Turbidity and Flow,
Available Data from USFS, Cyprus, USGS

DATE	TURBIDITY (NTU)	FLOW (CFS)
USGS 1971-72		
5/26/71	11	11
6/22/71	7	19
7/23/71	1	3.0
9/2/71	6	0.9
6/3/72	45	20
6/14/72	2	16
7/24/72	1	1.9
CTC and USFS 1981		
7/21	2.0	0.44
8/18	0.9	0.20
9/15	0.7	0.16
10/13	0.56	0.29
11/10	1.0	0.29
12/10	2.4	0.24
1982		
1/27	0.8	0.24
2/11	3.0	0.24
4/21	20.0	0.96
5/13	24	11
6/28	7.4	14
7/22	2.0	2.5
8/25	1.4	0.91
9/16	1.2	0.6
10/26	> 200.	1.4
11/22	2.3	0.35
12/14	1.8	0.29
2/16	2.2	0.24
2/22	5.2	.76
4/16	61.	.89
7/29	1.1	2.5
7/27	1.9	2.1
1983		
1/19	1.6	0.29
2/16	0.82	0.53
3/23	3.7	0.89
4/27	15.	2.8
5/24	66.	8.0
6/28	11.	0.04
7/20	18.	0.05
8/24	14	0.05
9/20	2.9	0.20
9/30	15.	0.28
10/13	4.	.24
11/9	10.	1.3
2/23	> 400.	.72
8/5	1.9	.05
8/9	4.1	.05

DATE	TURBIDITY (NTU)	FLOW (CFS)
cont.. 1983		
2/22	1152.	.67
2/24	232.	.74
3/3	1400.	.87
1984		
1/22	3.0	1.2
1/23	2.5	1.2
2/15	12.	1.2
3/15	17.	1.3
4/12	5.5	1.3
5/9	4.7	1.8
6/3	36.	12.
8/8	6.4	1.1
9/4	7.5	1.2
10/9	3.4	1.2
11/6	3.8	1.1
12/6	4.0	0.50
2/28	11.	1.2
3/8	15.	1.3
4/16	19.	2.0
4/18	16.	2.1
4/23	15.	2.1
4/26	5.4	1.9
4/30	4.2	1.8
5/3	17.	1.8
5/7	3.8	1.6
5/14	37.	4.2
5/17	24.	5.2
5/29	32.	9.3
5/31	56.	14.
6/4	11.	11.
6/7	6.	8.5
6/11	29.	6.9
6/18	6.3	9.1
6/21	6.1	8.4
6/25	4.3	5.8
6/28	4.2	4.6
7/2	2.4	3.7
7/5	1.8	3.1
7/9	3.1	2.7
7/16	2.4	1.8
7/23	82.	2.2
7/26	7.5	1.3
8/2	10.	1.4
8/6	7.5	1.2
8/9	5.5	1.2
8/16	3.8	1.0
8/30	7.8	1.2
9/6	240.	1.5
9/13	8.1	1.2

DATE	TURBIDITY (NTU)	FLOW (CFS)
cont.. 1984		
9/27	2.9	1.0
1985		
1/22	4.1	.60
2/19	4.2	0
3/17	24.	0
4/17	21.	2.5
5/12	6.6	–
2/24	13.	0
3/11	240.	0
3/12	328.	0
3/14	210	0
3/18	160.	0

TABLE 1 - 2

Turbidity and Flow Measurements for the Thirteen Cases-of-Record that Show Squaw reek in Excess of a 5 NTU Criteria

TURBIDITY (NTU)			AVG. DAILY FLOW (CFS)			Turbidity criteria for Squaw Creek	Turbidi allowa in Bru to me criter for Sq Creek	Volume of Storage Required for Retention (acre-ft.)	
Squaw Creek		Bruno Creek	Squaw Cr.	Bruno Cr.	Dilution ratio Squaw Creek / Bruno Cr.			24 hour	48 hour
Above Bruno	Below Bruno								
5	190	-	10	1.5	6.7	5	34	3.0	6.0
6	17	-	13	3.7	3.5	5	18	7.4	14.8
4.5	14	-	20	3.3	6.1	5	30	6.6	13.2
6.9	113	-	29	1.1	26	5	130	2.2	4.4
7.6	16	-	109	4.9	22	5	110	9.8	19.6
7.8	>200	>200	20	1.4	14	5	70	2.8	5.6
1.1	182	1152	9.7	0.67	14.5	5	72	1.33	2.6
5.2	272	-	11	0.75	14.7	5	73	1.5	3.0
2.2	32	-	10	0.76	13.2	5	66	1.5	3.0
5.6	290	1400	11	0.87	12.6	5	63	1.72	3.44
2.0	24	-	17	1.3	13.1	5	65	2.6	5.2
2.2	16	-	19	1.3	14.6	5	73	2.6	5.2
74	132	240	31	1.5	20.7	7.4	153	3.0	6.0

red

This was the period in which Production Well No.2 was test pumped, representing art icial flow increases and elevated turbidity and reduced dilution ratios.

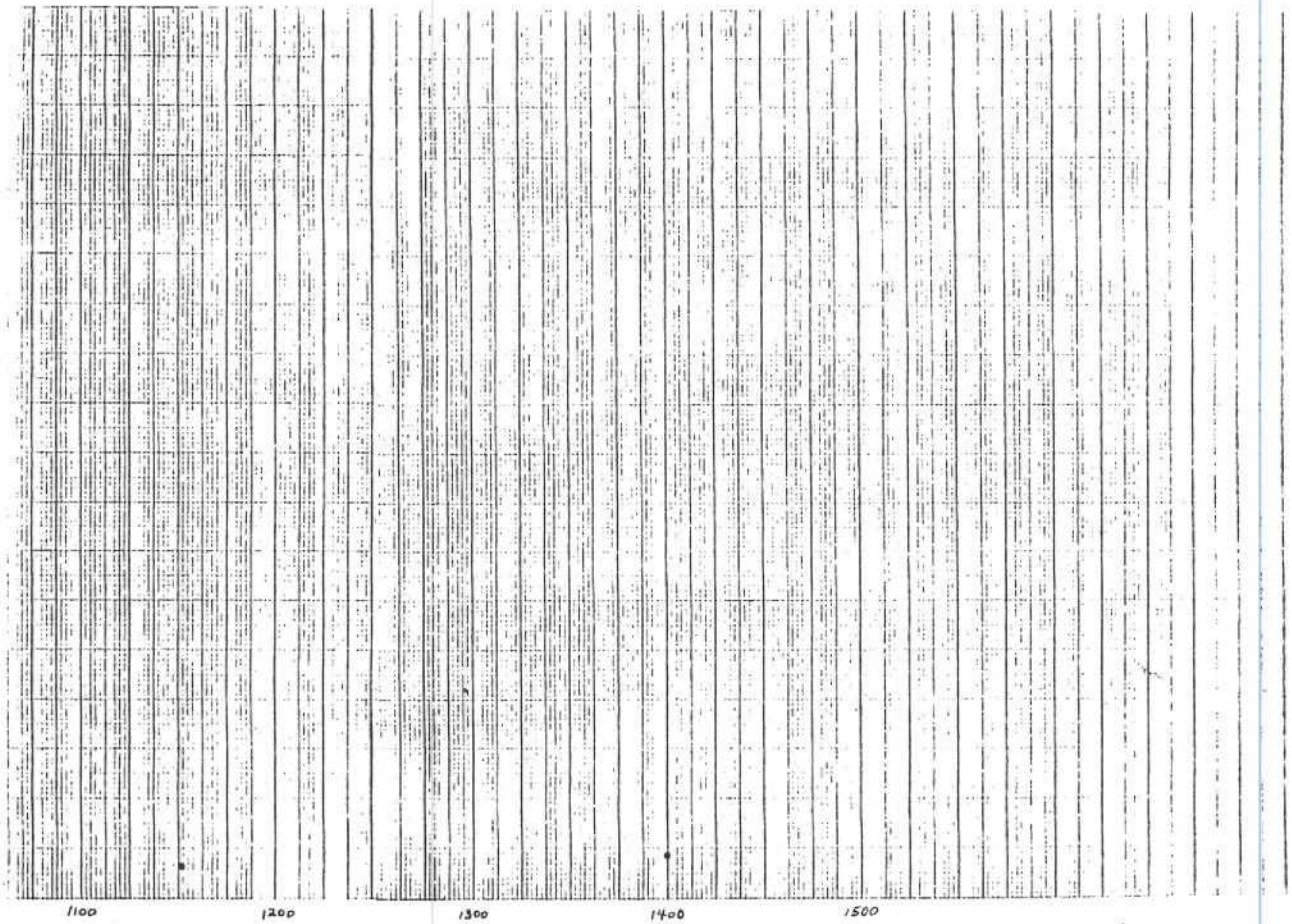
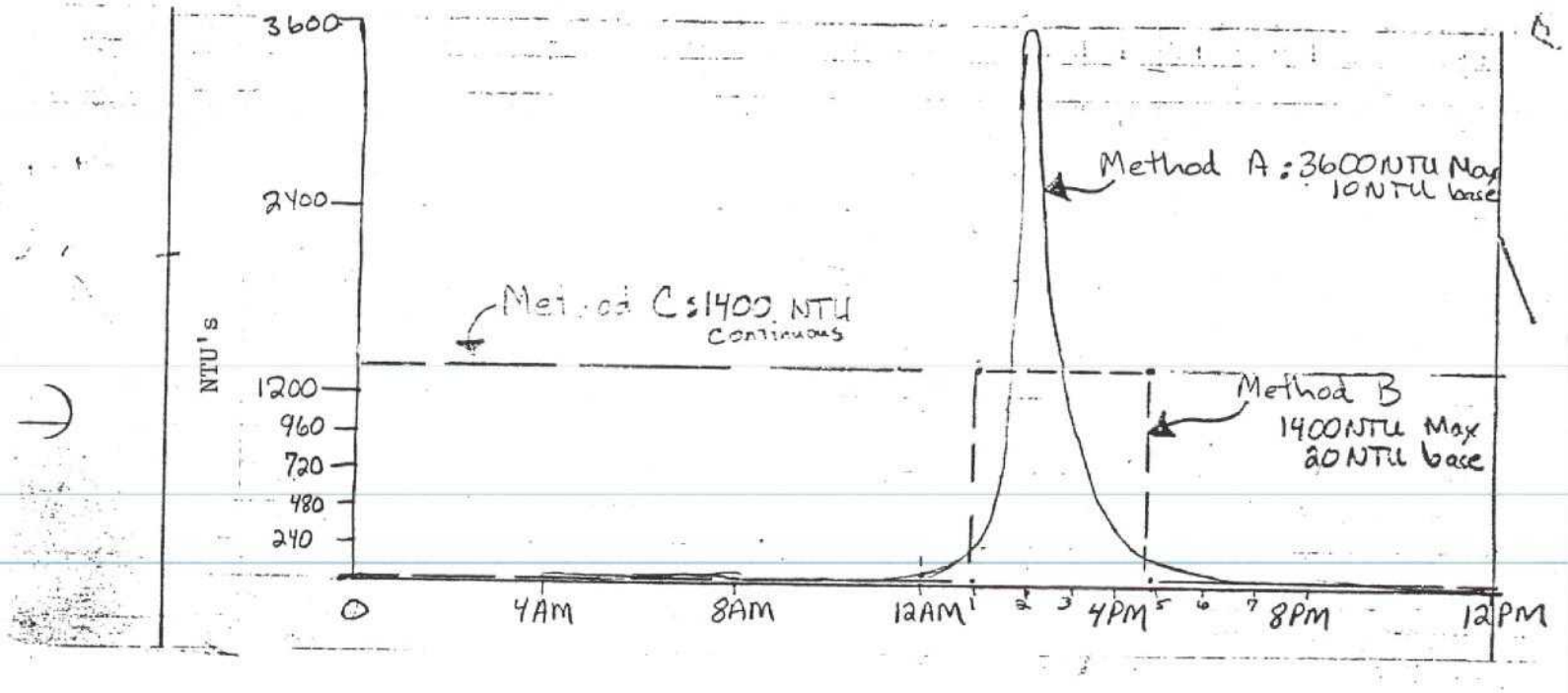


FIGURE 1-2. SIMULATED TURBIDITY CHRONOLOGY



From this simulated record, the following daily loading rates are estimated:

March 3, 1983

Hour of Day	Turbidity	No. Hours	Loading NTU Hrs.
0-12	10 NTU's	12	120
12-1300	100	1	100
1300-1400	1000	1	1000
1400-1430	4000	½	2000
1430-1500	1400	½	700
1500-1600	600	1	600
1600-1900	200	3	600
1900-2400	10	5	50
			5170

Total loading for day = 5,170 NTU-Hours divided by 24 hours = 215.4 NTU's average turbidity over a 24-hour day.

The volume of storage required to retain a 24-hour flow on this day is only 1.72 acre-ft. A pond size of 3.44 acre-ft would provide a 48-hour retention and an equivalent 48-hour long discharge of 108 NTU's if no settling were to take place. A pond size of 5.16 acre-ft would provide 72 hours retention and an average 72 hour discharge of 72 NTU's if no settling were to occur. With Bruno Creek at 72 NTU's, Squaw Creek would raise less than 6 NTU's at a 12.6 dilution ratio. Obviously, settling does take place, which would further reduce these projected effluent turbidity levels. At the same time, each 24-hour inflow period has a potential to have a mid-afternoon turbid

component. Generally, one of two or one of three days during the February-March period is warm enough to produce turbid runoff. After two days of cold weather, the base turbidity level of the pond would again be at background (10-25 NTU's). After two consecutive days of turbid runoff equal to the previous worst-case example, in a 3.44 acre-ft detention pond, effluent would equal the average influent at 215 NTU's from the second day, and 108 from the first day, or 162 NTU's with no settling. If the detention pond had a capacity of 6.88 acre ft. (96-hour retention at .87 cfs), a two-day runoff would only have about 81 NTU's by dilution alone. Such an effluent, at 81 NTU's, and at the very low Squaw Creek dilution ratio of 12.6:1, and with no settling, would raise Squaw Creek turbidity by 6.4 NTU's. If only 25% of the turbidity-causing solids were to settle out, which is not improbable with 96 hours of retention, this worst-case-on-record example would have met the 5 NTU criteria with a pond of 6.88 acre-ft. With a 24-hour-retention-sized pond, (1.72 acre ft.) the 5 NTU [illegible]

Method B

Based on observation, a typical winter turbid runoff event lasts for about 4 hours or less. Starting about Noon or 1 o'clock the road surface warms and thaws. Peak turbidity occurs for a short period of time, then decreases as temperatures drop and flushing occurs. Occasional events occur for longer periods of time.

Using Method B, the worst-recorded turbidity of 1400 NTU's was held constant for a 4-hour duration thaw, and then was assumed to return to a 20 NTU baseline level. This method yields a 24-hour average turbidity of 250 NTU's, which is similar to the 215.4 NTU's estimated using Method A.

The effects of pond assimilation, settling, holding time, antecedent pond quality, and Squaw Creek mixing would be the same for Methods A and B.

Pond-Sizing Conclusion from Worst-Case Data

On March 3, 1983, a runoff event that occurred could have met the 5 NTU criteria for Squaw Creek if a pond of 6.88 acre-ft were in place and only 25% of the turbidity-causing solids dropped out over a two-day period.

If a 70% settling rate could be expected over a 24-hour period, then only a 1.72 acre-ft pond would have been required.

The Cyprus proposal to construct a minimum of 6 acre-ft of retention storage will reduce the incidence of visible turbidity in Squaw Creek. When taken as a whole, including road surfacing, catch-basins, and settling, a pond of the size proposed is adequate. Where turbidity reduction is a complex function of particle size, retention pond size, flow rates, and numerous other variables including biological productivity, this example has been used for evaluation more than prediction. It is safe, however, to state that

shorter periods of lower turbidity at lower flows or higher dilution ratios will produce clearer water in Squaw Creek than the March 3, 1983 example used here.

Retention-Times

Settling tests and turbidity data were collected as part of the road-surfacing evaluation (See Section 3). In general, the materials recommended for road surfacing show a minimum of 50-75% settling within 24-hours. It is unlikely that settling capacity beyond 24-hours would be cost effective.

Method C

Example No. 2. On September 8, 1984 a 340 NTU occurrence in Bruno Creek was recorded. This example is typical of a rain runoff event lasting a day or more. For comparison purposes, three other rain-runoff turbidity levels are evaluated: 350, 700, and 1400 NTU's. Note that on Figure 1-3, few turbidity readings are in excess of 90 NTU's, and 1400 represents the highest measured.

For this method, average dilution or mixing ratios were calculated from the USGS records $\left(\frac{\text{flow in Squaw Creek}}{\text{flow in Bruno Creek}}\right)$.

These seasonal mixing ratios are shown below:

	Winter	Spring	Summer	Fall
Ave.	21.8	21.2	24.9	25.6

The mean annual ratio of 22:1 is used here.

For the example, flows in Bruno Creek are projected at two levels: 1.5 cfs, and 3.0 cfs. Because the upper Bruno Creek watershed is impounded behind the tailing system, only rarely would flows exceed 3 cfs, and flows will average only 1 or 2 cfs at the upper pond site.

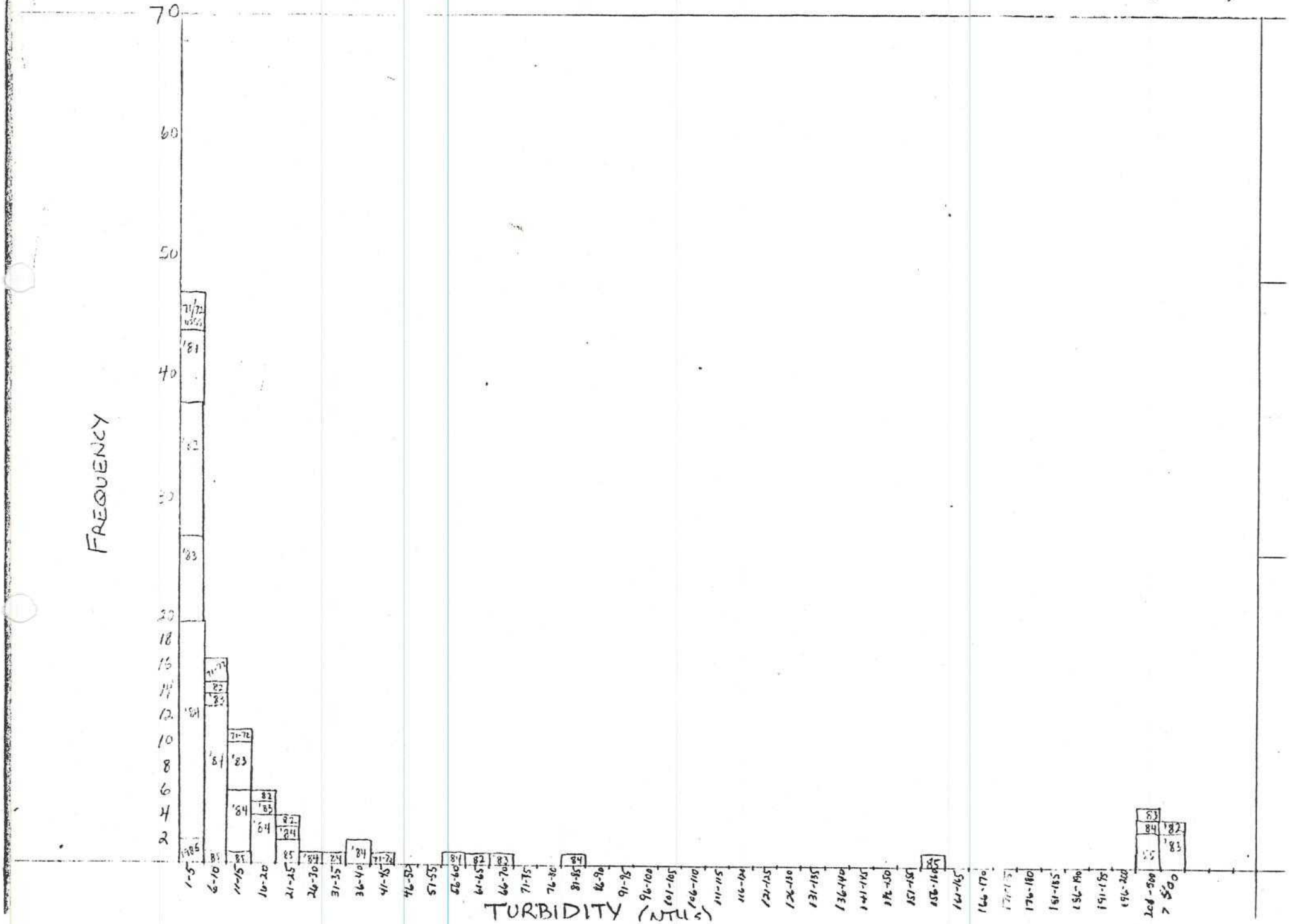
Table 1-3

Required settling of hypothetical storm events to achieve 5 NTU maximum increase in Squaw Creek, with a continuous 24-hour turbid inflow.

Bruno Creek Flow (cfs)	Inflow Turbidity (NTU's)	Dilution Ratio (Squaw/Bruno)	NTU's Allowable in Bruno Creek to meet 5 NTU in Squaw Creek	% Settling Required with Pond 3 acre/ft	6 acre/ft	9 acre/ft
1.5	1400	22	110	92	84	76
	700	22	110	84	69	53
	350	22	110	69	37	5
	240	22	110	54	8	None
3.0	1400	22	110	92	92	87
	700	22	110	84	84	74
	350	22	110	69	69	48
	240	22	110	54	54	24

Results of the Method C analysis are shown on Table 1-3. Only for extended turbid flows in excess of 500 NTU's, and exceeding 3 cfs, would the 5 NTU criteria be exceeded. It is presumed that during most such periods, the turbidity of Squaw Creek would equal or exceed that of Bruno Creek.

FIGURE 1-3. FREQUENCY OF TURBIDITY VALUES IN BRUNO CREEK. DATA FROM 1971-72, 1981-85. (n= 104)



APPENDIX 4

THOMPSON, SQUAW AND BRUNO CREEK
WATER MONITORING REPORTS
1982 - 1984

APPENDIX 5

EPA REGULATIONS

discharger designated under § 122.26(c) shall submit an application within 6 months of notification of its designation. [122.21(c)(2) added by 49 FR 38046, September 26, 1984]

(d) *Duty to reapply.* (1) Any POTW with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Director. (The Director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

(2) All other permittees with currently effective permits shall submit a new application 180 days before the existing permit expires, except that:

(i) The Regional Administrator may grant permission to submit an application later than the deadline for submission otherwise applicable, but no later than the permit expiration date; and

(ii) The Regional Administrator may grant permission to submit the information required by paragraphs (g)(7), (9), and (10) of this section after the permit expiration date.

[122.21(d)(2) revised by 49 FR 31842, August 8, 1984]

(3) All applicants for EPA issued permits, other than POTWs and new sources, must complete Forms 1 and either 2b or 2c of the consolidated permit application forms to apply under section 122.21 and paragraphs (f), (g), and (h) of this section.

[122.21(d)(3) added by 49 FR 31842, August 8, 1984]

(e) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit except for NPDES general permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his or her satisfaction. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity. For EPA administered NPDES programs, an application which is reviewed under § 124.3 is complete when the Director receives either a complete application or the information listed in a notice of deficiency.

(f) *Information requirements.* All applicants for NPDES permits shall provide the following information to the Director, using the application form provided by the Director (additional information required of applicants is set forth in paragraphs (g)–(k)) of this section.

(1) The activities conducted by the applicant which require it to obtain an NPDES permit.

(2) Name, mailing address, and location of the facility for which the application is submitted.

(3) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(4) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(5) Whether the facility is located on Indian lands.

(6) A listing of all permits or construction approvals received or applied for under any of the following programs:

(i) Hazardous Waste Management program under RCRA.

(ii) UIC program under SDWA.

(iii) NPDES program under CWA.

(iv) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.

(v) Nonattainment program under the Clean Air Act.

(vi) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.

(vii) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.

(viii) Dredge or fill permits under section 404 of CWA.

(ix) Other relevant environmental permits, including State permits.

(7) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant in the map area. Group II storm water discharges, as defined in § 122.26(b)(3), are exempt from the requirements of paragraph (f) (7) of this section.

[122.21(f)(7) amended by 49 FR 38046, September 26, 1984]

(8) A brief description of the nature of the business.

(9) For Group II storm water dischargers (as defined in § 122.26(b)(3)) only, a brief narrative description of:

(i) The drainage area, including an estimate of the size and nature of the area;

(ii) The receiving water; and

(iii) Any treatment applied to the discharge.

[122.21(f)(9) added by 49 FR 38046, September 26, 1984]

(g) *Application requirements for existing manufacturing, commercial, mining, and silvicultural dischargers.* Existing manufacturing, commercial, mining, and silvicultural dischargers applying for NPDES permits shall provide the following information to the Director, using application forms provided by the Director:

(1) *Outfall location.* The latitude and longitude to the nearest 15 seconds and the name of the receiving water.

(2) *Line Drawing.* A line drawing of the water flow through the facility with a water balance, showing operations contributing wastewater to the effluent and treatment units. Similar processes, operations, or production areas may be indicated as a single unit, labeled to correspond to the more detailed identification under paragraph (g)(3) of this section. The water balance must show approximate average flows at intake and discharge points and between units, including treatment units. If a water balance cannot be determined (for example, for certain mining activities), the applicant may provide instead a pictorial description of the nature and amount of any sources of water and any collection and treatment measures.

(3) *Average flows and treatment.* A narrative identification of each type of process, operation, or production area which contributes wastewater to the effluent for each outfall, including process wastewater, cooling water, and stormwater runoff; the average flow which each process contributes; and a

existed to support the elimination of discharges from permit requirements. EPA considered these public comments and published final storm water regulations on September 26, 1984 (49 FR 37998).

II. September 26 Final Rule

The final rule recognized that there are two fundamental NPDES issues regarding storm water: (1) Which storm water discharges are point sources and therefore within the NPDES program, and (2) what is the best way to regulate these sources.

With regard to the first issue, EPA was persuaded by comments on the proposal that there were insufficient data to support a narrowing of coverage for storm water under the NPDES program. The Agency therefore promulgated final regulations that essentially retained the broad scope of the 1976 and 1980 rules. The final rule comported with the legal requirements set by the Clean Water Act and *NRDC* v. *Train*, which mandate the regulation and permitting of point sources that discharge pollutants into waters of the United States. The September 26 rule identified as a point source any storm water discharge that is located in an urbanized area, or discharges from industrial or commercial lands or facilities, or is designated by the Director. Because of concerns that the term "contaminated" as used in the 1980 rules was ambiguous and difficult to apply, the term was deleted. The new regulations rely instead on geographic criteria but result in approximately the same broad coverage.

In the preamble to the September 26 rule, EPA stated that insufficient data were available to justify the proposed exclusions of storm water discharges from coverage as point sources and that available data, especially on urban runoff, supported broad coverage of storm water discharges. Throughout the rulemaking process, no one submitted any data to substantiate claims that there are categories of storm water dischargers that have *de minimis* impacts on the environment and should be excluded from permit requirements. EPA concluded that it may not exclude storm water discharges without some basis; indeed, data available to EPA, such as the Nationwide Urban Runoff Program (NURP) study, indicated existing and potential water quality problems from storm water discharges.

To address the second issue, the regulatory approach, EPA retained in the final rule the two-tiered classification and application requirements set forth in the November 18, 1982 proposal. As provided in the Settlement Agreement with industry challengers, the final regulations set a deadline of six months from their effective date for submission of storm water permit applications. (Due to a technical error, the rule as published stated that March 26, 1985 was the deadline. However, the preamble refers to six months from the effective date of the rule, April 26, 1985, and this is the correct deadline for submission of applications under the existing regulations.) A technical correction to the regulations recognizing the April 26, 1985 deadline was published in the **Federal Register** on February 19, 1985.

The final rule set out two categories of storm water point sources with different application requirements for each. Group I storm water discharges are those subject to effluent limitations guidelines, located in an industrial plant or plant associated area, or designated by the Director. All other storm water point sources are classified as Group II. Group I dischargers were required to complete the full NPDES application: Form 1 plus Form 2C, which requires sampling and testing data. Form 2C data was requested of Group I dischargers so that data on the quality of these discharges could be analyzed and appropriate permitting strategies and requirements developed.

The application requirements were significantly reduced for Group II dischargers. They were required to submit only Form 1 plus a narrative description of the drainage area, the receiving water, and any treatment applied to the discharge. This lessened the burden on the dischargers that EPA believed were less likely to cause significant environmental problems.

Although considerable relief has been provided to Group II storm water point sources by this reduction in application requirements, EPA specifically requests comments on whether it would also be appropriate to postpone the application deadline for Group II storm water point sources until sometime in 1986. Such a postponement, to either June 30, 1986, or December 31, 1986, would allow EPA and the NPDES States to focus their efforts on the Group I point sources, which are more likely to be environmentally significant. Such a postponement clearly would not preclude issuance of a permit in the interim to a Group II point source or group of point sources, where a problem with that discharge or group of discharges is identified.

Because EPA lacked sufficient data on the nature and constituents of these highly diverse point sources, further data collection was considered essential to the development of an effective program of storm water management. The September 26 final rule reflected EPA's decision to gather such data through individual permit applications. Several commenters suggested that storm water runoff be regulated through general permits, and EPA agreed that this may be the best general approach, although individual permits for some dischargers may be necessary in some cases. However, the reason why general permit coverage does not usually require submission of a full Form 1 and Form 2C is because the general permit approach is available only where the Agency already has adequate information on the nature and impacts of the discharges. EPA clearly lacks sufficient information on storm water discharges at this time: therefore, and Agency retained full application requirements for these sources.

III. Reaction to the Final Rule

The final storm water regulations produced considerable post-promulgation comment on both of the central issues in the rulemaking: the scope of coverage and the Agency's strategy for regulating these sources.

With regard to the scope of coverage, some affected dischargers complained that the storm water permit requirements would subject thousands of point sources to the NPDES program for the first time. In fact, as the September 26 final rule indicated, the coverage of storm water point sources under the NPDES program was essentially unchanged by this rulemaking. The new rules simply deleted the term "contaminated" and relied instead on geographic criteria. Since the 1976 rule, pursuant to the *NRDC* v. *Train* decision, these dischargers have been required to obtain permits.

Various litigants, industries and trade associations also claimed that the April 26 deadline would be impossible for many dischargers to meet. One reason given was that many discharges were located in areas where testing during the winter months would not be feasible. It was also argued that the intermittent and unpredictable nature of storm water discharges would result in difficult and time-consuming data gathering because laboratories doing the sampling would have to be on stand-by waiting for a representative rainfall event to test the discharge. Dischargers also claimed that there would be insufficient laboratory facilities to do the required analysis within so short a time period. Finally, some commenters asserted that six months was an insufficient amount of time to locate, identify, sample and test thousands of storm water point sources. They also argued that the magnitude of the task for permit authorities meant

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